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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/674,522 | 01/02/2001 | Takehiro Fujii | P107400-00017 | 3514 |

7590 08/26/2002

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EXAMINER

→ NGUYEN, JOSEPH H

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2815 | |

DATE MAILED: 08/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|---------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/674,522 | FUJII, TAKEHIRO |
| | Examiner Joseph Nguyen | Art Unit 2815 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 05 March 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-5 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on 05 March 2002 is: a) approved b) disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 59-9564 in view of JP 58-201347.

Regarding claims 1,2 and 4, JP 59-9564 discloses on figure 4 substantially all the structure set forth in the claimed invention except each of the electrode patterns being formed through an entire width of the board. However, JP 58-201347 discloses on figure 14 each of the electrode patterns 12, 13 being formed through an entire width of the board 27C. In view of such teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify JP 59-9564 by having each of the electrode patterns being formed through an entire width of the board for the purpose of obtaining a better electrical connection throughout the LED chip type device.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP59-9564 and JP-58-201347 as applied to claim 1 above, and further in view of Okazaki.

Regarding claim 3, JP59-9564 or JP-58-201347 discloses substantially all the structure set forth in the claimed invention except the board size of 1.6 mm X 0.8 mm or less. However, Okazaki discloses on figure 3 that the board 17 is having a size of 1.6

mm X 0.8 mm or less. In view of such teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify JP59-9564 or JP-58-201347 by having the board size of 1.6 mm X 0.8 mm or less in a LED device for the purpose of reducing the thickness of the LED device economically as taught by Okazaki (col. 9, lines 40-45).

Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over figures 3 or 4 of the acknowledged prior art (APA) in view of JP 49-48267.

Regarding claims 1, 2, 4 and 5, figures 3 or 4 of APA discloses substantially all the structure set forth in the claimed invention except two quart cylindrical notches formed at both sides at the board at the second electrode. However, JP49-48267 discloses on figure 8 that an LED device having two-quart cylindrical notches formed at both sides at the board at the second electrode. In view of such teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify figures 3 or 4 of (APA) by having two quart cylindrical notches formed at both sides at the board at the second electrode for the purpose of reducing the size of an LED device.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over figures 3 or 4 of the acknowledged prior art (APA) and JP 49-48267 as applied claim 1 above and further in view of Okazaki.

Regarding claim 3, figures 3 or 4 of the acknowledged prior art (APA) and JP 49-48267 discloses substantially all the structure set forth in the claimed invention except the board size of 1.6 mm X 0.8 mm or less. However, Okazaki discloses on figure 3 that the board 17 is having a size of 1.6 mm X 0.8 mm or less. In view of such teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify figures 3 or 4 of the acknowledged prior art (APA) and JP 49-48267 by having the board size of 1.6 mm X 0.8 mm or less in a LED device for the purpose of reducing the thickness of the LED device economically as taught by Okazaki (col. 9, lines 40-45).

Response to Arguments

Applicant's arguments filed on 3/5/2002 have been fully considered but they are not persuasive.

With respect to claims 1, 2 and 4, applicant argues that JP 59-9564 (JP '564) does not disclose or suggest the features recited in the claimed invention. However, JP '564 clearly discloses on figure 4 substantially all the structure as now set forth in amended claim 1. In figure 4, JP '564 discloses synthetic resin 11, electrode patterns 6, substrate (board) 5 and the LED chip 7 (refer to figure 2). Therefore, JP '564 clearly discloses a LED chip type device.

With respect to claim 3, applicant argues that Okazaki completely eliminates the wire bond and utilizes a conductive paste for direct connection of the LED to the electrode patterns. However, Okazaki clearly discloses the board size of less than 1.6mnX0.8mm as recited in the claimed invention. The fact that applicant uses the

board size for a different purpose does not alter the conclusion that its use in a prior art device would be *prima facie* obvious from the purpose disclosed in the reference. *In re Litner*, 173 USPQ 560. Furthermore, it has been held that discovering the optimum or working ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

With respect to claims 1, 2, 4 and 5, applicant argues that JP' 267 does not supply the subject matter lacking in view of the APA. However, JP' 267 clearly discloses on figure 8 an LED having two quart cylindrical notches formed at both sides at the board ad the second electrode.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Nguyen whose telephone number is (703) 308-1269. The examiner can normally be reached on Monday-Friday, 7:30 am- 4:30 pm

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (703) 308-1690. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-7382 for regular communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JN
May 15, 2002



EDDIE LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800